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Impact of foreign trade on Romania's economic sustainability during the pre- and post-accession periods

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Abstract

The paper presents some aspects of Romania's foreign trade impact on the sustainability of the national economy during the pre- and post-accession periods laying emphasis on the trade balance, the influence of foreign direct investments and the trends of the revealed comparative advantages indices of Romania's export within the intra- and extra-EU27 trade. The research poses the issue of Romania's economic decline and of its slow recovery taking into account the effects of the incipient integration stages, corroborated with those of the international financial crisis which broke out in 2008. The main conclusion of the research reveals that both foreign trade and FDI at macroeconomic level failed to counteract the negative effects of the economic crisis in Romania and did not contribute to Romania's sustainability and convergence. The decline recorded by Romania's GDP in the years 2009 and 2010 was still not recovered by 2013 even if exports and imports exceeded the pre-crisis maximum level.

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*Keywords:*trade balance; FDI impact; repatriated and reinvested profit; relevant comparative advantages;

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1. Specialized literature analysis, the principle of international exchanges equivalence;. Theoretical and practical approaches

The issue of "development through trade" constituted one of the most debated fields of the economic theory in time. Starting with the theories of comparative costs and of specialisation by A. Smith and D. Ricardo up to date, the theoreticians have attempted to prove that, on long-term, liberalisation of international economic exchanges represents a factor of economic growth both for developed countries and for developing ones, by deepening the international labour division, promoting technological progress, and putting to good use the economies' endowment with production factors (their quantity and quality), and by improving governance and increasing foreign direct investment and domestic investments' efficiency.

Compliance with the **principle of equivalence** and with the one of mutual advantage in the international economic exchange of goods and products is indissolubly linked to the principle of efficiency lato sensu.

The analysis of foreign trade is one complex approach requiring the consideration of the effects and of the direct costs, along with the negative and positive externalities in quantitative and qualitative terms, and the influence of the time factor, as well.

Starting from the general postulate of the strategic games' theory as positive sum (win-win) and from the classic formula of efficiency (E) as ratio between **outcomes, outputs** (O) and expenditure inputs (Ex), that is E= O/Ex we consider that the **equity and efficiency in international economic exchanges** imposes the equality of economic efficiency between all the participants or, at least, mutually acceptable differences between partners.

Complying with the principle of the quasi-equivalence of the outcome O to a unit of input effort, or expenditures provides arguments for avoiding the situation in which for the same unit of expenditure or effort some partners gain "too much" and others "much less", or not at all, or are even registering losses.

In our analytical approach we start from the premise that both foreign trade and FDI are not a purpose **per se** but important **means** for achieving the objectives of sustainable economic development for each country under the conditions of complying with the outcomes' equality requirement for the unit of effort in the case of all involved players.

The vast majority of experts consider that persisting trade deficits of a country signify an unfavourable situation for the latter, a deterrent for the sustainable GDP growth. As component part of the current account deficit, they require resorting to loans from abroad or asset sales for making possible financing the purchase of goods and services.

Other, more balanced opinions, consider as damaging only those deficits generated by:

a) loans for financing current consumption to a large extent rather than financing long-term investments;

b) diminish labour force employment or are the outcome of intensified inflationist processes.

As beneficial, and even acceptable are regarded those trade deficits supporting long-term investments, generate jobs, incomes and other investments as well as economic creditability.

Gilles Saint-Paul, Programme Director of the Centre for Economic Policy Research, France emphasises that commercial deficits can turn into a severe issue if they are the outcome of persisting competitiveness losses under the impact of inflation, and of exports' decrease.

The external debt will have to be reimbursed sooner or later which means drastic consumption reductions as painful adjustment measure.

Of interest are also allegations that maintain that (Alessandria, G., 2007) trading deficits tend to become "an omen of all the good" to come after the dictum "Post nubila phoebus"(!). Trading deficits have also benefits as they are directing the world production towards its most productive locations, enabling the individuals to gradually diminish their consumption during the period of the business cycle.

To the contrary, other economists (Griswold D.T., 2001) consider that the trading deficit is accompanied by the economic income and consumption growth and unemployment reduction: it is worth mentioning that trade deficits beneficial effects are mainly proved in the USA's particular case, country that holds a special position within the international financial system. On the other hand, Prof. Don Boudreaux, Chairman of the Economic Department of the George Mason University, stated that "If commercial surpluses are that good, the thirties' should have had to be the boom decade" (www.cafehayek.com).

We believe that the diversity of opinions regarding the impact of the foreign trade deficits is explained by the particularities and differences between national economies.

In the case of Romania, a country with an emerging economy and a relatively low level of development, the chronicity of commercial deficits with a long-term increasing trend cannot be regarded as a good omen. It is but the reverse case. Therefore, in the present study we shall attempt to highlight a series of shortcomings of these commercial deficits in Romania, based on the idea of identifying also the ways to soften negative effects. Situations can be exemplified in which the commercial deficits/surpluses can be beneficial or totally negative depending on the actual circumstances of each country.

2. Developments of the trade balance during the pre- and post-accession period

The trade balance (TB) is regarded as a relevant macroeconomic indicator for the economic situation of a country and can be computed as difference between Exports (E) and imports (M), that is TB_1=E-IM, or as ration between E and M, that is TB_2=E/M.

The indicator (TB_2) can be assimilated to the category of efficiency indicators, where the outcome, the output is export (E) and the expenditure, and the input is import (IM).

The two calculation formulae of TB are equivalent with respect to the outcomes. A **deficit, fair**or **surplus** trade balance shall be characterised by negative, zero or positive sizes in the calculations based on the formula (TB_1) and, respectively, sub-unitary, unitary and over-unitary sizes, in case of using the formula (TB_2).

Irrespective of the calculation manner, the trade balance shows the interface with the external environment of the domestic economy of a country. In fact, we make exports in order to obtain the foreign currency necessary for the imports required for the economic and social development of the country.

During the entire transition period to the market economy, Romania had a **negative** trade **balance,** with an increasing trend on medium- and long-term which highlights the unfavourable situation of the commercial deficit chronicity.

Table 1:Yearly average size of the commercial balance intra and extra EU-27 of Romania during the pre- and post-accession period

-bill.euro-

	Period		Post-accession/ Pre-accession
	Pre-accession 2001-2006	Post-accession 2007-2010	
0	(1)	(2)	(3)=(2):(1)
Yearly average size of trade balance for Romania intra-EU-27	-3,76	-11,32	3,0
Yearly average size of trade balance for Romania extra-EU-27	-4,07	-4,83	1,18

Source: own calculations based on EUROSTAT data.

From Table 1 results that during the post-accession period against the pre-accession one, the yearly average negative trade balance of Romania sensibly increased by about 3 times. This deterioration is explained by the lower competitive capacity of Romanian exports on the free single market of the EU, and by the impact of the financial crisis that diminished the export demands of Romania's partner countries within EU-27.

The percentage structure on EU-27 countries of the yearly average trade balance of Romania in the post-accession period highlights that the largest deficits registered by our country were in the commercial relations with Germany (33.2%), Hungary (19.3%), Poland (8.5%), Austria (13.3%), Netherlands (7.9%), Italy (7.1%), Czech R. (6.0%), and France (4,6%).

The deterioration of the yearly average trade balance during the post-accession period against the pre-accession one meant actually an increase of the **external indebtedness degree** of Romania against the respective countries. The highest increases in this negative balance were recorded in the commercial exchanges with the Netherlands(16.7

times), Hungary (12.9 times), Belgium (4.9 times), Austria (4.4 times), Poland (2.34 times), France (4.8 times) and Germany (2.33 times).

The increase in the trade deficits of Romania in the post-accession period occurred mainly in the case of neighbouring EU member-states, which imposes first of all to take measures for diminishing the respective balance with these countries.

During the post-accession period**, the yearly average trade balance for Romania with extra-EU-27 countries** increased by about 1.2 times, much less as compared with intra EU-27 countries. This is explained also by the effect of “trade creation” due to Romania’s accession to EU and “trade diverting” in the case of extra EU-27 countries.

The highest weights of Romania’s trading deficit with the extra-EU-27 countries in the total average deficit balance were recorded in the case of China (39.7%), Russia (39.9%), Norway (5.1%) and Japan (3.4%). The highest dynamics of the yearly average negative trade balance of Romania with respect to the extra-EU-27 area, during the post-accession period against the pre-accession period were the deficits recorded with Norway (an increase by 3.8 times), China (2.81 times) and USA (1.16 times).

3. The relative positive and negative trade balance

The manufacturing’s industry activities are of particular importance for Romania’s imports and exports.

The analysis of the relative trade balance based on the ratio (X-M):(X+M), for the manufacturing’s industry activities of Romania in the year 2011 (COMTRADE data) leads to the differentiation of two large categories of activities, that is:

a) **6 activities with a relative positive trade balance where (X-M):(X+M)>0**, and where the values closer to zero signify a more fair positive trade balance and, respectively, the ones closer to the units a higher surplus;; These branches are: leather &footwear (0,08); refined petroleum (0,09); motor vehicles (0,25); clothing (0,53); other transport (0,57); wood and wood products (0,59); furniture (0,63);

b) **14 activities with negative trade balance**, with values of (X-M):(X+M)<0, respectively: basic metals (-0,09); electrical equipment (-0,11); printing (-0,14); rubber & plastics (-0,18); computers, electronic &optical (-0,19); machinery (-0,25); other manufacturing (-0,27); metal products (-0,28); chemicals (-0,38); food (-0,40); beverages (-0,45); textiles (-0,47); pharmaceuticals (-0,52); paper (-0,64).

The number of activities with surplus is by over two times lower than the one of those with relative negative deficit of the trade balance. The surplus is registered for goods with a relatively low processing level, and the deficits in the case of the ones with a higher processing level. The abnormality for Romania’s foreign trade is recording trade deficit for foods, textiles and beverages where there is actually a considerable potential of domestic production.

The relatively weak competitiveness of Romania’s foreign trade is triggered by the diminishment of the diversification (sophistication) degree of exports during the pre-accession period, as well as by the low volume of exports and imports of high-tech imports, while the highest weight of exports was held by the exports of goods and services with low and average technological level..

Romania’s weight in the total EU-27 volume of exports and imports of high-tech in the year 2011 was of 2.2% against 47.4% in Germany, 25.6% in France and 5.7% in Poland.

The yearly trade balance deficit of Romania for high-tech in the post-accession period registered the following levels: 1.61 bill. Euro in 2009; 2.0 bill. Euro in 2010; and 1.86 bill. Euro in 2011.

In the total volume of exports and imports (Table 2), Romania’s high-tech holds a relatively modest weight. In 2010 against 2009 this weight increased slightly, while in 2011 it registered a slight decreasing trend as compared with 2010.

Table 2 High-tech weights (%) in Romania's total imports and exports for the years 2009-2011

-mill.Euro-

	2009	2010	2011
1. Import total	35955	44935	52682
2. High tech import	4196	5700	5928
3. (2):(1) %	11,67	12,68	11,25
4. Export total	29084	37360	42275
5. High tech export	2389	3668	4077
6. (5):(4) %	8,21	9,81	9,6

Source: own calculations based on EUROSTAT and NBR data.

The issue of Romania's trade balance deficit evolution represents a serious challenge for the country's sustainable economic growth as long as for the period 2013-2014 is forecasted again an increase trend for the trade deficit from -6.8 bill. Euro to -8.9 bill. Euro. The increasing trade deficits represent for Romania a burdening of the external payments balance, the narrowing of the investment opportunities as result of spending monetary sources for the debt payment.

In terms of macroeconomic efficiency results that the outcome variable (GDP) for the following five years has a much slower increase forecast than the effort variables (investments and imports). This trend means, practically, a decrease of macroeconomic efficiency undermining the premises of the converge process. The causality relationship between GDP, FDI, exports and imports analysed with the aid of VAR method (Acovavci A. et al. 2012) for the Romania's case shows an ambiguous situation.

4. FDI impact on Romania's foreign trade

FDI, just as foreign trade, on medium- and long-term, highlights at world level a clear increasing trend. Developed countries hold the most significant weight in the FDI's stock volume and total flows, but FDI in emerging and developing countries after the crisis' outbreak in 2008 had a much higher dynamics against developed countries, which had as outcome a slight increase of their weights.

The opinions regarding the influence of FDI on foreign trade and economies of host countries with a relatively low development level can be divided, conventionally, in three large categories, that is:

a) FDI exert a favourable influence on economic growth (Albu L.L.,2013, Damijan J. et al.,2003, De Mello L.R.Jr., 1997);
b) FDI influence both positively and negatively the economy of the host country (Agosin R.M., 2010, Borensztein E. et al.,1998);
c) there is not yet a clear conclusion with respect to FDI impact on all host countries (Colen L.et al.,2008).

An entire series of disputes regarding FDI impact are related to the differentiation of their influence on sectors according to the technological level ("high tech" and "low tech"), on types of "Greenfield", and "mergers and acquisitions", or on tradable and non-tradable FDI, as well as on crowding-out and crowding-in effects of foreign investors.

Table 3 Volumes of exports (E), imports (I) and trade balance (TB) of enterprises with FDI in Romania, in the years 2008-2012

bill.Euro

	Trade balance (TB) (E-I)				
	Years				
	2008	2009	2010	2011	2012
Total, from which:	-11,59	-2,89	-2,23	-1,93	-2,52
Industry, from which:	-1,93	+2,10	2,97	4,00	3,63
- Manufacturing industry	-2,04	+2,02	3,08	4,02	3,91
Services, from which:	-9,66	-4,99	-5,20	-5,93	-6,15
-Trade	-8,38	-4,38	-4,65	-5,54	-6,02

Source: own calculations based on NBR and NIS data, Foreign direct investments in Romania in the years 2008-2012.

Our analysis aims in particular at the FDI impact on the evolution and structure of the trade balance in the period 2008-2012 as results from Table 3:

- during the post-accession period 2008-2012 for the whole foreign trade of companies with FDI was registered a **decreasing trading deficit** from about -11.6 bill. Euros in 2008 to 2.52 bill. Euros in 2012, a fact explained by the much swifter decrease of imports against exports which has a necessary positive but not sufficient effect on GDP;

- the industry in general and the manufacturing[†] one in particular, was the sector generating the highest surpluses of the trade balance being also the factor which contributed to the partial re-launch of economic growth during the financial crisis;

- the trade and services sector contributed to the largest extent to the trade balance deficit during the analysed period.

Among the factors with unfavourable impact on Romania's economy sustainability related to FDI we mention:

- FDI concentration in sectors with low and medium technological level of over 85% and which deliver to exports products with low value added;
- the predominance to a share of 53.5% of FDI in non-tradable sectors (non-tradable products) which, mainly, imports and the its concentration in the region Bucharest-Ilfov (58% in 2012) which generates inter-regional gaps;
- the extremely low average weight of greenfield investments (0.84% from total FDI) during the period 2008-2012, these practically having the highest positive triggering effect on the national economy and of increasing new fixed assets;
- the predominance of FDI companies' development (over 97% of total FDI in the years 2009-2012), mainly resultingfrom privatising large state-owned companies accompanied by important labour force layoffs;
- a relatively lower share of reinvested profit as compared with repatriated profits, negative impact ofintragroup credits and transfer pricing (Zaman Gh., 2012; Balcão R.A., 2001)

The distribution of "greenfield" FDI on sectors of activity highlights the highest weight of the tertiary sector which is "non-tradable" (especially trade, financial intermediation and insurances, constructions and real estate transactions).

[†]**The largest surpluses** of the manufacturing industry's activities in the year 2012 were recorded by transportation means (+2,22 bill.euro), metallurgy (+1,39 bill.euro), wood products manufacturing, including furniture (+1,00 bill.euro); the highest deficits, respectively, were registered by crude oil, chemical products, rubber and plastic processing (-1,50 bill.euro); foods, beverages and tobacco (-0,69 bill.euro); cement, glass (-0,1 bill.euro).

4.1. The terms of trade issue

One of the major factors of the external competitiveness of foreign trade is related to the level and quality of prices' dynamics for export and import, respectively (Kaneko A., 2000). As a rule, scientific intensive high-tech products are sold to much higher prices than the ones included in the category of raw materials and semi-fabricated products. The imbalance of the foreign trade of a country to a considerable extent can be generated by the terms of trade under the conditions in which the export prices are smaller than the import prices.Romania's terms of trade (table 4) has diminished by 11 pp in the post-accession period as compared with the pre-accession one.

Table 4: Average yearly indices of the quantities and unitary values of Romania's exports and imports, terms of trade and the purchasing power of exports

2000=100

	Pre-accession 2004-2006	Post-accession 2007-2012	2007-2012/2004-2006
-Imports			
quantities	248	365	147
unitary value	111	99	89
-Exports			
quantities	178	245	138
unitary value	136	110	81
Terms of trade	122	111	91

Source: 2012 International Trade Statistical Yearbook, vol.II.

The revealed comparative advantages (RCA)calculation based on the classic formula of B. Balassa can be framed within the **system of structural efficiency indicators**(Zaman Gh., Geamănu M., 2006). They indicate some important aspects of interbranches external specialisation on national economy.

The size of the RCA indices for the exports of Romania's manufacturing industry to EU-27 countries during 2011 highlights on the four dimensional categories of RCA an international intra-activities' specialisation structure which is relatively weak as compared with Poland and other developed countries.

High indices: RCA>2	
Romania	Poland
clothing (2,18); leather &footwear (2,40); wood & furniture (3,61); wood products (4,18)	wood & wood products (2,33); furniture (5,03)
Medium indices: 1,5< RCA <2	
motor vehicles (1,82); printing (1,90)	non-metallic mineral products (0,15); motor vehicles (1,64); paper (1,66); metallic products (1,79); rubber &plastics (1,85); furniture (5,03)
Modest indices: 0,5< RCA <1,5	
non-metallic mineral products (0,54);chemicals (0,55); computers,electronic&optical (0,61); machinery (0,77); refined petroleum (0,85); other transport (0,91); basic metals (0,98); metal products (1,12); electrical equipment (1,48)	other manufacturing (0,22); printing (0,54); machinery (0,57); refined petroleum (0,59); textiles (0,60); computers,electronic&optical (0,60); clothing (0,71); chemicals (0,76); basic metals (0,92); electrical equipment (1,35); rubber and plastics (1,85)
Weak indices: RCA <0,5	
other manufacturing (0,23); beverages (0,28); pharmaceuticals (0,30); paper (0,31); food (0,49)	other manufacturing (0,27); pharmaceuticals (0,32); leather&footwear (0,41); beverages (0,45)

The RCA indices determined for longer periods of time in the case of Romania's exports (Zaman, Gh., Vasile,V. 2012) highlight a trend of diminishing their size. This signifies an unfavourable trend of specialisation and of the external competitiveness of the national economy, a constriction for the nomenclature of exported goods and services, completely opposed to the general trend at world level.

4.2. Final remarks

In the post-accession period against the pre-accession period is found an increase of about three times of the average annual trade balance deficit for Romania as result of the negative impact of the international financial crisis and of the inherent difficulties generated by the adjustment to the rigours and competition on the EU single market.

At macroeconomic level the companies with FDI had an unfavourable effect on the trade balance in the period from 2008 to 2012 in particular the companies from the services' sector. Industry and especially the manufacturing industry contributed to diminishing the negative balance in the years 2009-2012 and generated a surplus of the trade balance.

The impact of foreign trade and FDI to date needs to a greater extent special research on the way in which environmental sustainability is affected at local, regional, national and international levels (Chakraborty D., Mukherjee S.,2013). This impact is closely related to international transfer of low carbon technologies and knowledge based reindustrialization policies (Wade R.H., 2012). Another important research field of FDI and foreign trade regards the influence on life quality, wellbeing, improving/deterioration of poverty line, social equity and responsibility of companies etc.

The increase of the contribution of companies with FDI can take place in the future based on some more selective policies of promoting greenfield investments in the high-tech field, of stimulating the weight of reinvested profit, of vertical foreign investments, as well as based on a better territorial distribution of the latter by giving priority to the regions with a relatively low level of economic and social development.

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